

REASONS TO SAY NO TO SMART METERS

SMART METERS HARM HEALTH



Center for Electrosmog Prevention, a California nonprofit corporation www.electrosmogprevention.org

Smart Meter Dangers www.smartmeterdangers.org

American Coalition Against Smart Meters (ACASM) www.causes.com/acasm

An Educational Resource Packet to read and share with everyone you know and as a presentation packet for city and county governments. Please, go out and educate!

REASONS TO SAY NO TO SMART METERS:

1. **Experts are saying smart meters are unsafe, harmful to the environment, and often inaccurate. They can interfere with personal privacy and security.** This packet will explain some of the reasons why no more smart meters should ever be installed and why existing ones should be removed.
2. **Recent landmark developments in May, 2011 concerning radiofrequency radiation exposures:** a. **WHO determines rf radiation a significant cancer risk** - placed in same category as a potential carcinogen along with leaded gasoline, DDT, exhaust, chlordane, and chloroform.¹ b. **Landmark smart meter opt-out legal case won in Maine**, setting precedent for nation.² c. **Parliamentary Assembly of the Council of Europe (PACE) calls on governments to ‘take all reasonable measures’ to reduce exposure to electromagnetic fields.**³
3. **To date, 42 California municipalities, including 8 counties, have criminalized the installation of, banned or taken out resolutions against smart meters**, with more each week.⁴ These responsive city councils and county supervisors had very good reasons for their decisions.
4. **Public Outcry → Opt-Outs Costly:** The CPUC has had to demand a public smart meter opt-out plan from PG&E to stem the tide of increasing health complaints against smart meters.⁵ PG&E has delivered a plan that will cost consumers more to avoid the harmful meters, costing consumers up to \$500 each, in the first year.⁶ In San Diego County, UCAN, a local utility watchdog nonprofit, is attempting to broker a plan with SDGE to allow consumers to pay more to avoid the smart meters, due to many complaints ranging from health to overcharging and inaccuracies.⁷ No opt-out is yet approved by CPUC. *Some say the PG&E proposal sounds like: Pay us and we won’t harm you.*
5. **Regarding safety:** First and foremost, forcing an unsuspecting population to receive unhealthful exposures has been called irresponsible and deplorable.

¹ IARC, WHO (5.31.11), <http://www.smartmeterdangers.org/index.php/position-statements/156-who-iarc-emf-carcinogenic-news>

² <http://www.skelontaintorabbott.net/news/85/77/Skelton-Taintor-Abbott-Wins-Landmark-Smart-Meter-Case.html>

³ Parliamentary Assembly of the Council of Europe (PACE) (5.27.11), <http://www.smartmeterdangers.org/index.php/position-statements/153-pace>

⁴ <http://stopsmartmeters.org/how-you-can-stop-smart-meters/ca-local-governments-on-board/>

⁵ <http://www.smartmeterdangers.org/index.php/smartmeter-facts/96-opt-out-plan>

⁶ <http://www.baycitizen.org/pge/story/pges-plan-smartmeters-opt-out-pay/>

⁷ http://www.ucan.org/energy/electricity/advanced_metering/ucan_puc_smart_meters_shouldnt_be_forced_upon_sdge_customers

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6. What do scientists, experts in rf radiation exposures, and public organizations say about smart meters?

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- "...the inauguration of **smart meters** with grudging and involuntary exposure of millions to billions of human beings to pulsed microwave radiation **should immediately be prohibited**... It should be noted that **we are not the only species at jeopardy, practically all animals and plants may be at stake**... abundant evidence [exists] that biological effects and adverse health effects are occurring at [EMR] exposure levels hundreds to thousands of times below existing public safety standards around the world. Since scientists observe biological effects at as low as 20 microWatts/kg, is it then really safe to irradiate humans with 2 W/kg (i.e., with 100,000 times stronger radiation!), which is the recommendation level for us? " Olle Johansson, PhD, Department of Neuroscience, Karolinska Institute (home of the Nobel Prize) (Sweden)⁸
- "...we are creating **a potential time bomb**. If smart meters are [utilized], they will contribute significantly to our exposure and this is both **unwise and unsafe**." Magda Havas, PhD, Professor of Environmental & Resource Studies, Trent University (Canada)
- "[Smart Meters] use is **unwise from both a public health point of view**, which is where my expertise lies, but and also from a purely short and long-term economic point of view." David O. Carpenter, MD, Director of the Institute for Health & the Environment, Albany, NY⁹
- **California Department of Health (2011): effects from rf radiation are supported in the literature**¹⁰
- **AARP (American Association of Retired Persons) has taken a position against smart meters**, based on higher electric rates for the retired, low-income, and elderly who are at home during peak hours - due to smart-meter-implemented time-of-day rate hikes and pricing. AARP cites *life and death choices* re: use of medical equipment and cooling during peak hours that will be impacted by smart meter rate hikes.¹¹
- **Sierra Club - San Francisco has taken a position against smart meters, urging a one-year moratorium, based on the precautionary principle.**¹²
- **Public Citizen (Ralph Nader's consumer advocate organization)** has a national campaign exposing that smart meters don't save energy, just profit PG&E's bottom line. (EMF Safety Network)

⁸ Commentary on CCST report by Olle Johansson, Jan. 17, 2011 <http://sagereports.com/smart-meter-rf/?p=308>

⁹ <http://www.scribd.com/doc/46947223/Dr-Carpenter-s-Comments-on-CCST-Smart-Meter-Report>

¹⁰ <http://emfsafetynetwork.org/?p=3856>

¹¹ <http://www.aarp.org/money/budgeting-saving/info-03-2010/smart-meters-are.html>

¹² <https://docs.google.com/viewer?a=v&pid=sites&srcid=ZGVmYXVsdGRvbWFpbXub2NlbGx0b3dlcmhub3VybmVpZ2hib3Job29kfGd4OjM4YmRjM2MzMzE3ZTU1NTA>

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- **TURN (Utility Reform Network) supports a smart meter boycott**¹³, calling smart meters “a dumb idea, don’t help save energy, and put your privacy at risk”¹⁴.
- 7. **Adds more electro smog and risk:** Even water district smart meters would add to the intolerable, rapidly growing, current burden of rf radiation created by utility company mesh grid smart meters, cell towers, and voluntary wireless devices.
- 8. **Use of smart meters does not reflect use of the precautionary principle**, to protect the public from possible harm.¹⁵ It is impossible to prove safety for these meters.
- 9. **A huge risk to public health:**
 - **OVER 8 THOUSAND CALIFORNIANS HAVE FILED HEALTH COMPLAINTS WITH THE STATE PUBLIC UTILITY COMMISSION (CPUC) DUE TO SMART METERS IN 2010.** The Commission has received more than 8,000 complaints about [JUST] PG&E Smart Meters. Statewide, the Commission has received more than 2,000 complaints [during] two months (August 15 - October 15, 2010). Many of the complaints include health, safety and environmental concerns (Sandi Maurer, EMF Safety Network).¹⁶
 - **Rf radiation is so potent that it has been developed by the military for use in warfare** to harass, harm, or to potentially kill human beings.¹⁷
 - Electro sensitive, environmentally ill, chronically ill, and the general population are at risk to become very ill from smart meters. Electro sensitives alone are approx. 35% of the population, with up to 3.1% in the severe range, according to the Swedish government. That would be up to 20,000 people in just a town of 60,000.^{18 19}
 - *Many are now electro and rf sensitive, though before the smart meters, they were not. There is emerging evidence that this sort of exposure to smart meters can cause this. Those people live a life of pain and isolation.*
 - Children, the elderly, pregnant women, the mentally ill, people with implants and medical devices that can be interfered with by wireless, such as cardiac pacemaker, hearing aids, and insulin pumps, are also at higher risk.²⁰

¹³ <http://www.turn.org/article.php?id=1154>

¹⁴ <http://www.turn.org/article.php?id=875>

¹⁵ Wikipedia

¹⁶ <http://docs.cpuc.ca.gov/efile/CM/126507.pdf>

¹⁷ Bioeffects of Selected Nonlethal Weapons(fn1) US Dept of the Army, US Army Intelligence and Security Command, Dec. 2006, Declassified, DA FOIA/PAD IV

¹⁸ <http://www.smartmeterdangers.org/index.php/smart-meter-research/119-research-studies-electric-sensitivity>

¹⁹ <http://www.hese-project.org/hese-uk/en/niemr/ehs.php>

²⁰ http://www.nap.edu/catalog.php?record_id=12036

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- This is a huge segment of the population, well over 50%.
- Metal implants, dental work, and use of metal eyeglasses and jewelry such as earrings, “metallic adornments and implanted medical devices for the human body.... examples include metal rim glasses, earrings, and various prostheses (e.g., hearing aids, cochlear implants, cardiac pacemakers)” may interact with the rf radiation, [causing greater exposures and painful tissues]. Research gaps are an area of interest. (National Academies of Science, 2008, Nuclear and Radiation Studies Board (NRSB))²¹
 - i. Some have personally experienced pain from wearing metal glasses and earrings. One environmental physician points to the signal jumping to these and becoming secondary antennae.
 - ii. Those with a lot of metal dental work may make them more susceptible.²²
- *Biological effects from this type of rf radiation exposure are in the hundreds, and can range from subtle to very severe. Some will be immediate and others long-term. Health effects can involve: tissue and joint pain; headache, inflammation, cognitive problems involving memory, concentration, behavior, and mood; ringing ears, ear pain, hearing loss, sleeping problems, dizziness, heart palpitations, weakness, sinus swelling and pain, facial pain. headache, increased fatigability, diminished intellectual capabilities, dullness, partial loss of memory, decreased sexual ability, irritability, sleepiness and insomnia, emotional instability, sweating, and hypotension, thyroid problems, shortness of breath (dyspnea) and pains in the chest region. At low intensities effects may be subtle, impairing performance; chronic, affecting general mental and physical health and longevity; and may also be mutagenic, affecting succeeding generations, changes in the blood, and DNA²³. This is not a complete list. The list is approx. 200 symptoms long.*
- Some smart meter recipients have experienced a constellation of at least 15 health problems. Since the smart meters went in, they feel that the meters are literally killing them slowly and torturously, with no relief. Their physicians agree and are very concerned. Some have fled their homes to the streets or other states.
- **Independent scientists and experts increasingly warn** against use of smart meters and other wireless equipment, citing harm to children, especially.²⁴ Multiple studies reported that the brains of young children absorb more radiation than those of adults (deSalles 2006; Gandhi 1996; Kang 2002; Martinez-Burdalo 2004; Wang 2003; Wiart 2008), potentially rendering them more vulnerable to brain tumors (NRC 2008b).

²¹ http://www.nap.edu/openbook.php?record_id=12036&page=16

²² <http://electromagnetichealth.org/electromagnetic-health-blog/medical-director-of-switzerland/>

²³ <http://www.smartmeterdangers.org/index.php/smart-meter-research/104-bioeffects-microwave-radiation>

²⁴ <http://www.smartmeterdangers.org/index.php/smart-meter-research/81-seletun-scientific-statement-article>

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- **Scientists are directly warning us about even low levels of rf radiation, especially for chronic exposures.**²⁵
- Increasingly, epidemiologic and other studies are showing associations with cancer and exposure to rf radiation. Rf radiation is listed as a potential carcinogen by the President's Task Force on Cancer. Physicians are increasingly diagnosing brain cancers as being from exposure to rf radiation.²⁶ The wireless frequencies used are associated with many biological effects, such as: DNA strand breakage and inability to repair; and leakage of the blood brain barrier, cognitive dysfunction, hearing and vision damage, inflammation, immunological and neurological problems.²⁷ Many of these would not be "felt" till too late. The remark "I have a smart meter and feel nothing" would not mean there is no harm.
- On the Smart Meter Dangers educational and scientific website, www.smartmeterdangers.org, at least 6,000 peer-reviewed studies on rf radiation are listed (with 5,000 in a searchable database) that show biological effects, including infertility.²⁸

10. Electrosmog – the electromagnetic radiation such as that from smart meters can cause severe damage to all life on earth, due to impacting key components of the web of life. Studies show major harm to honeybee populations²⁹ and tadpoles³⁰ from similar electromagnetic radiation exposures.

11. Current standards are not equivalent to safety.

- **SERIOUS BIOLOGICAL EFFECTS ARE SHOWN IN MULTIPLE PEER-REVIEWED STUDIES AT 1/1000TH AND 1/500TH OF THE FCC STANDARD.**³¹
- **WHO (World Health Organization) has been criticized for not applying the precautionary principle to its position on electromagnetic radiation exposures.** "Uncertain indications of risk are ignored or played down."³²
- The FCC standard for rf radiation is currently under review. It caters to industry, allowing 500 times the rf exposures compared to more protective countries.

²⁵ <http://www.smartmeterdangers.org/index.php/position-statements/79-seletun-scientific-statement>

²⁶ <http://www.schoolmoldhelp.org/images/stories/CarpenterfinalCCST.pdf>

²⁷ http://www.ccst.us/projects/smart/documents/public_health_&_wireless_tech.pdf

²⁸ <http://www.smartmeterdangers.org/index.php/smart-meter-research>

²⁹ <http://www.smartmeterdangers.org/index.php/smart-meter-research/131-honeybee-cell-phone-radiations>

³⁰ <http://www.smartmeterdangers.org/index.php/smart-meter-research/132-tadpoles-electrosmog>

³¹ http://www.vws.org/documents/16DrMagdaHavas_WiFi51pgs_000.pdf

³² <http://www.smartmeterdangers.org/index.php/smart-meter-research/133-who-failure-precautionaryprinciple>

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- The FCC standards are scientifically obsolete, crafted twenty years ago, and did not take into account a mesh network or all frequencies now used involving a forced chronic exposure with the presence of pulsed rf radiation. FCC's own informational sheet bioeffects and radiofrequency was last published in 1999 - 12 years ago - and has not kept up with the science.³³
- Our safety is not protected by the FCC or any government agency in this area. All share the same problems cited above, all are obsolete and cater to industry.
- **FCC is not a health authority.** It claims to get advice from US EPA on rf radiation, but US EPA does not oversee this area anymore, not since the mid-90's, when it was taken from them shortly after their scientists pointed to concerns over rf radiation and need for more studies.
- **Certain frequencies of rf radiation are more harmful, and these are the ones used by smart meters**

12. Studies citing safety of rf radiation for smart meters are flawed, insider reports.

- The so-called "study" cited by CPUC, HWD, and SDG&E is from Tell Associates, paid for by PG&E. It is not peer-reviewed nor scientific, it is only an industry paid report that minimizes risk.³⁴
- The heavily criticized review called *Health Impacts of Radiofrequencies from Smart Meters* by CCST cited often by CPUC, HWD, and SDG&E, according to its critics, reflects heavy use of Tell report, misleading data³⁵ and industry-generated information.
- CCST has been criticized for ignoring invited data³⁶ that did not suit industry perspectives and not comparing apples to apples.
- **CA Division of Rate Payer Advocates** (California Public Utilities Commission) heavily criticized the CCST review for inadequate reporting in a scathing 4-page commentary³⁷
- A review of the Tell report used by CCST found full body radiation from smart meters to be up to 160 x that of a cell phone³⁸ (**Dan Hirsch**, Leader of Committee to Bridge the Gap, whistleblower for the nuclear industry).

³³ http://www.fcc.gov/Bureaus/Engineering_Technology/Documents/bulletins/oet56/oet56e4.pdf

³⁴ Tell, R. (2008) "Supplemental Report on An Analysis of Radiofrequency Fields Associated with Operation of the PG&E Smart Meter Program Upgrade System," Prepared for Pacific Gas & Electric Company, Richard Tell Associates, Inc., October 27.

³⁵ Tell, R. (2008) "Supplemental Report on An Analysis of Radiofrequency Fields Associated with Operation of the PG&E Smart Meter Program Upgrade System," Prepared for Pacific Gas & Electric Company, Richard Tell Associates, Inc., October 27.

³⁶ <http://www.magdahavas.com/2011/01/18/havas-report-on-smart-meters-for-ccst/>

³⁷ <http://www.dra.ca.gov/NR/rdonlyres/C5CBD825-1698-45DA-BFF8-7EF4E0251EDE/0/DRACommentsOnCCSTReportJan302011.pdf>

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- Nearly all formal comments made about the CCST report are negative, by independent physicians, scientists, and experts in the field.³⁹ *Read them.* <http://www.ccst.us/projects/smart2/>
 - CCST has conflicts of interest with the US DOE, an agency that funded & approved many of the smart meter programs.⁴⁰
 - **No independent health, safety, or environmental impact studies have been conducted on smart meters. This was waived by the CPUC, with thousands saying it has caused grave damages to the people of California.**
13. People are and will be exposed by smart utility meters in their homes, on the sidewalks, in their yards, in their daily activities, as studies show environmental factors influence emission strength, including the geometry of the home and reflective surfaces like mirrors.⁴¹
14. **Wireless smart meters constantly transmit pulsed digital microwave radiation (RF) 24/7, up to 22,500 pulses per day.** PG&E minimizes the transmitting time stating its only 45 seconds per day, however these pulses are between 2-20 millisecond bursts. In addition this duty cycle does not include what the Smart Meters are further intended for- wireless data transmission for new RF enabled appliances. (EMF Safety Network)
15. Cindy Sage, coeditor of The Bioinitiative Report (www.bioinitiativeverepor.org) states that "wireless smart meters are unique in that they transmit 24/7 without shut off and without relief. Humans can recover from significant adversity and stress, but 24/7 pulsed transmissions from wireless smart meters dominates the sleep time for human recovery, and the pulsed signal radiation from the wireless meters dominates the natural bio-electronic communications originating in the brain." http://sagereports.com/smart-meter-rf/?page_id=282
16. **Smart meters are an experiment on the public that violates the Nuremberg Code for experimentation if this was a medical experiment (see next two pages).** *We are not lab rats for the government or utility companies. Yet we are being treated as such, with fewer regulations. One US DOE- approved grant for Southern California Edison's smart grid project in Irvine describes the smart grid project in Irvine as a "living laboratory", which many find offensive and frightening, considering people are reporting harm and no one is stopping the experiment.*⁴²

³⁸ http://eon3emfblog.net/wp-content/uploads/2011/02/110212_GBG-on-Smart-Meters.pdf

³⁹ <http://www.ccst.us/projects/smart2/>

⁴⁰ <http://www.ccst.us/ccstinfo/affiliates/sandia.php>

⁴¹ Sage, 2011

⁴² <http://www.recovery.gov/Transparency/RecipientReportedData/pages/RecipientProjectSummary508.aspx?AwardIdSur=99423&AwardType=Grants> Southern CA Edison Grant [DE-OE0000199](http://www.recovery.gov/Transparency/RecipientReportedData/pages/RecipientProjectSummary508.aspx?AwardIdSur=99423&AwardType=Grants) \$39,621,208.00

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17. **If utilized, smart meters will cost the rate payers more money**, as they are more likely to overbill customers; will have to be removed, ultimately, and will cause the utility to suffer expensive legal claims for injuries.
18. **Smart meters have been implicated in a significant number of house fires and explosions.**⁴³ A whistleblower in Northern California described hasty, shoddy installations by poorly trained temporary help that led to arcing and sparks.⁴⁴
19. **Smart meters are said by some scientists to be harmful to plant life.** Plants are reported to dying in front of some single meters or banks of smart meters.^{45 46}
20. **It is impossible to guarantee safety for these meters. Too much evidence exists. Further deployment would be irresponsible.**
21. **Citizens of every town, city, county, state, and country will long remember whether their elected officials protected or harmed them by their decisions and actions.**

SAY NO TO RADIATION. SAY NO TO SMART METERS.

SAY YES TO HEALTHY ENVIRONMENTS.

The Nuremberg Code

From “Trials of War Criminals Before the Nuremberg Military Tribunals Under Control Council Law No. 10”, Vol. 2, Nuremberg, October 1946, April 1949. (Washington, DC)

The great weight of the evidence before us is to the effect that certain types of medical experiments on human beings, when kept within reasonably well-defined bounds, conform to the ethics of the medical profession generally. **The protagonists of the practice of human experimentation justify their views on the basis that such experiments**

⁴³ http://emfsafetynetwork.org/?page_id=1280

⁴⁴ <http://stopsmartmeters.org/2011/01/26/stop-smart-meters-exclusive-interview-with-a-wellington-energy-whistleblower/>

⁴⁵ <http://stopsmartmeters.org/2011/04/08/shrubs-dont-lie/>

⁴⁶ <http://www.magdahavas.com/2010/12/02/smart-meter-kills-plant/>

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yield results for the good of society that are unprocurable by other methods or means of study. All agree, however, that certain basic principles must be observed in order to satisfy moral, ethical and legal concepts.

1. The voluntary consent of the human subject is absolutely essential.

This means that the person involved should have legal capacity to give consent; should be so situated as to be able to exercise free power of choice, without the intervention of any element of force, fraud, deceit, duress, overreaching, or other ulterior form of constraint; and should have sufficient knowledge and comprehension of the elements of the subject matter involved as to be enable him to make an understanding and enlightened decision. This latter element requires that before the acceptance of an affirmative decision by the experimental subject there should be made known to him the nature, duration, and purpose of the experiment; the method and means by which it is to be conducted; all inconveniences and hazards reasonably to be expected; and the effects upon his health or person which may possibly come from his participation in the experiment.

The duty and responsibility for ascertaining the quality of the consent rests upon each individual who initiates, directs, or engages in the experiment.

2. The experiment should be such as to yield fruitful results for the good of society, unprocurable by other methods or means of study, and not random and unnecessary in nature.
3. The experiment should be so designed and based on the results of animal experimentation and a knowledge of the natural history of the disease or other problems under study that the anticipated results will justify the performance of the experiment.
4. The experiment should be so conducted as to avoid all unnecessary physical and mental suffering and injury.
5. No experiment should be conducted where there is an a priori reason to believe that death or disabling injury will occur; except perhaps, in those experiments where the experimental physicians also serve as subjects.

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6. The degree of risk to be taken should never exceed that determined by the humanitarian importance of the problem to be solved by the experiment.
7. Proper preparations should be made and adequate facilities provided to protect the experimental subject against even remote possibilities of injury, disability, or death.
8. The experiment should be conducted only by scientifically qualified persons. The highest degree of skill and care should be required through all stages of the experiment of those who conduct or engage in the experiment.
9. During the course of the experiment the human subject should be at liberty to bring the experiment to an end if he has reached the physical or mental state where continuation of the experiment seems to him to be impossible.
10. During the course of the experiment the scientist in charge must be prepared to terminate the experiment at any stage, if he has probable cause to believe in the exercise of the good faith, superior skill and careful judgement required of him that a continuation of the experiment is likely to result in injury, disability, or death to the experimental subject.